PACIFIC STEEL AND RECYCLING
PRELIMINARY INVESTIGATION REPORT

Branch 31

Description of Incident:

On Wednesday, August 12, 2015, at approximately 9:30 a.m., an incident occurred at Branch 31, Spokane, Washington, when an unidentified substance escaped from a steel vessel which was being processed for scrap. Subsequent air sampling was positive for the presence of chlorine. The incident occurred during normal working hours and the employees involved were performing their normal duties. Five (5) employees sustained physical effects from the exposure to this gas and received medical examination and treatment. One employee ultimately succumbed to that exposure.

The incident occurred at the Metso shear located in the ferrous scrap yard. Employees present or in the vicinity at the time of the incident included (b) (6), (b) (7)(C) who was operating the shear, Ed Dumaw who was feeding the shear with the CAT material handler located immediately to the west, (b) (6), (b) (7)(C) who was operating another material handler further to the west on the opposite side of a large metal scrap pile between him and Ed Dumaw, (b) (6), (b) (7)(C) who was located at the west end of the yard at the bailer and was loading a customer's flatbed trailer and (b) (6) who was operating another material handler in a bay east of the shear. Employees who came to the scene shortly after the incident included (b) (6), (b) (7)(C) (mechanic), (b) (6), (b) (7)(C)). Another employee, (b) (6), (b) (7)(C), was working at the scale.

Preliminary investigation has revealed that the steel vessel (photo attached) was loaded onto a Pacific Steel end dump by (b) (6), (b) (7)(C), a local scrapper who was removing scrap from the site of a construction company. Observation of the vessel by different employees, including (b) (6), (b) (6), Mr. Dumaw, and (b) (6), (b) (7)(C) did not raise concerns that it was a container which might contain hazardous chemical. None of the employees identified it as material which could not be accepted as scrap. The vessel has been variously described as a "roller," a "water tank," or a "steel pipe." (b) (6), (b) (7)(C) observed the vessel as it was being loaded into his end dump at the customer's site. He drove to Branch 31, entered the scale at the scrap yard, and drove to Bay No. 2 immediately west of the shear. He then dumped the load of scrap and pulled away, departing the scrapyard to park the end dump. Ed Dumaw used the grapple to pick the steel vessel from the pile and place it in the shear. As Mr. Dumaw is deceased, it is unknown whether he followed standard procedures and rotated the vessel to determine if it was a tank and, if so, if it had been punched, de-valved, or otherwise cleared. Mr. Dumaw placed the steel vessel in the shear and (b) (6) activated the shear to position it prior to crushing. At first contact, however, a greenish substance escaped from the end of the vessel splattering liquid against the windows of the operator enclosure of the shear, then spreading and rising as a greenish-yellow cloud of gas over the scrap yard (see photograph). Ed Dumaw, (b) (6), (b) (7)(C) were all exposed to the gas and had immediate difficulty breathing. (b) (6), (b) (7)(C) evacuated to the grassy 208 area located at the northwest corner of the yard. (b) (6), (b) (7)(C) left the shear and was met at the bottom of the stairs by (b) (6), (b) (7)(C) who assisted him to the retaining wall located to the southeast

of the shear. It is unknown where Ed Dumaw went initially, although (b) (6), (b) (7)(C) subsequently found him seated at the break/first aid room. Dumaw, (b) (6), (b) (7)(C) and a non-employee were taken to the hospital for examination and treatment.

Contributing Factors:

The steel vessel is of unusual appearance and such a vessel had not been encountered in the Branch before. The employees who observed the vessel did not identify it as material which could not be accepted, or as a container subject to the company's existing rule that all tanks, cylinders, containers and the like be punched, de-valved or otherwise cleared prior to acceptance as scrap. The vessel does have valves which, although recessed at the end of the vessel, are observable upon inspection. Following the company's established procedures and workplace rules should have led to the discovery that the steel vessel was not acceptable as scrap at this facility. Thus, it should not have been accepted for the end dump and transported to the scrap yard, should not have been placed in the shear, and should not have been compressed by the shear.

Factors such as production deadlines, timelines, or immediacy did not play a role in this incident. No equipment malfunction or failure contributed to the incident. No relevant unsafe acts or conditions were reported prior to this incident. There have not been similar incidents or similar "near misses" prior to this incident.

Remediation:

Corrective action will be taken in the form of counseling and retraining of the employees who had the opportunity to identify the steel vessel as unacceptable under the company's established Material Acceptance Guidelines. Further, retraining on the established evacuation route will be conducted. A review is underway as to whether changes in the Company's Material Acceptance Policy, the Employee Training Guide and/or the Material Acceptance Policy Management Plan are necessary.

Execution:

Completed by: (b) (6), (b) (7)(C)
Title: PACIFIC STEEL & RECYCLING (b) (6), (b) (7)(C)
Date: OCTOBER 12, 2015

Reviewed by: (b) (6), (b) (7)(C)
Title: (b) (6), (b) (7)(C) SPOKANE WA.
Date: OCTOBER 12, 2015

Approved by: (b) (6), (b) (7)(C)
Title:
Date: 10/12/2015